21725

792

Servicing Instructions
STEREO DYNAMIC 1070

I. General Data

Power supply: For A.C. only, 117 V, 60 c/s

Fuse: Glass-tube fuse, 1.6 A

Dial illumination: 3 lamps 7 V, 0.3 A, one of which is a pilot lamp for stereo operation.

Tubes: ECC 85 (6AQ8), ECH 81 (6AJ8), EF 89 (6DA6), 2 x EABC 80 (6AK8), 2 x EL 84 (6BQ5), 2 x EM 85, EZ 81 (6CA4).

II. Mechanical Readjustment of Dial Indicator

Turn AM and FM tuning control to the right as far as possible and set both indicators on the corresponding end marks.

III. Preparations for tuning AM circuits

1. Switch set to push-pull (mono). (Stereo button undepressed).
   Dynamic button undepresses.
   Turn volume, bass and treble controls to full and set ferrite antenna at 0 or 360 degrees.
   Depress "Orchestra" tone selector button and set Distant/Local switch at Distant.
2. Signal generator (30% AM modulated) should be connected via 5000 pF to G1 (Hex) of tube ECH 81 for AM - IF tuning (472 kc/s) and via a dummy antenna (circuit 400 pF/200 Ohms) to the antenna and earth sockets for tuning IF band-stop circuit, AM oscillators and AM preliminary circuits.
3. Connect output meter to connector for supplementary loudspeaker (1.5 V range).
   During tuning, the output voltage should be about 400 mV.
   Damping element: Series circuit 5000 pF/30 kOhms.
4. Ferrite antenna switched out.

IV. Preparations for tuning FM - IF circuits

Apply signal generator voltage (unmodulated) throug tube ECC 85 via coupling cap.
Control and button positions immaterial.
DC tube voltmeter or high-impedance measuring instrument connected for C- or D-type measurement.
Tune at approx, 2 Volt reference voltage (AVC). Damping element: Series circuit 5000 pF/5 kOhms.

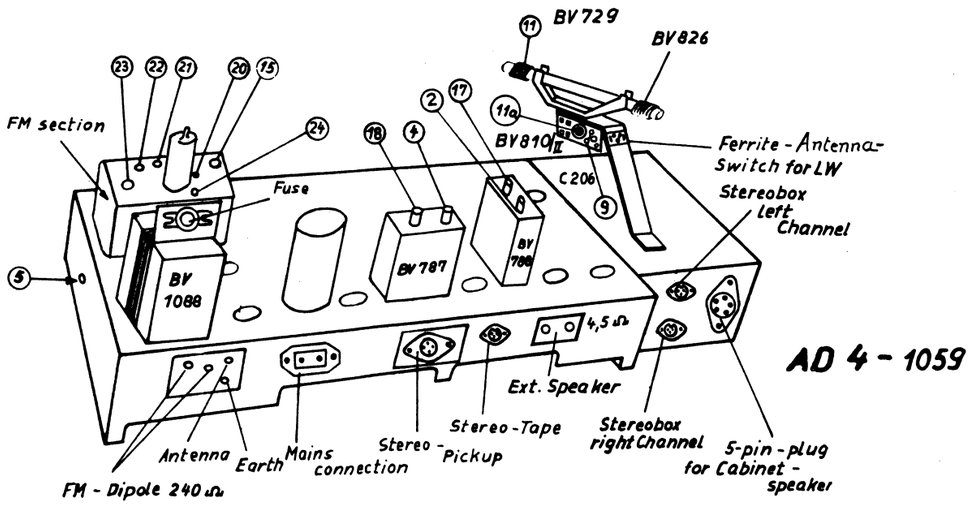
V. Tuning of FM - HF Section

1. Connect signal generator (unmodulated) to dipole connector (240 Ohms symmetrical).
   Reference voltage (AVC) approx. 6 V.
   Connect measuring instrument for C- or E-type measurement.
   a) Set signal generator and scale indicator at 105 Mc/s and trim point 20 to maximum response.
   b) Set signal generator and scale indicator at 89 Mc/s and turn point 24 to maximum response.
   Repeat tuning procedures a and b until no further improvement is obtained.
   Set signal generator and scale indicator at 100 Mc/s, and turn points 21 and 23 to maximum response.
2. Neutralisation tuning is carried out at 100 Mc/s by alternate trimming of points 22 and 21, tuning 22 to minimum response with the anode voltage cut out (disconnected at W 191), and 21 to maximum response with reconnected anode voltage.
   Repeat procedure until no further improvement is obtained.

VI. Note

To obtain optimum symmetrical form of the transmission curve, it is recommendet that the entire tuning should be carried out in accordance with Table VII.

After tuning seal the cores with wax and the ferrite coil with lacquer.



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Tuning Table

	Signal generator connection	Type of modulation	Press wave-band button	Tuning of signal generator	Tuning of receiver	Special adjustments	Tuning element	Position	Tune to	Type of measurement
AM	via 5000 pF to G1 ECH 81 (Hex)	AM 30%	MW	472 kc/s	1 Mc/s	Damp filters alternately	Core 1 BV 788	bottom	maximum	A
							Core 2 BV 788	top		
							Core 3 BV 787	bottom		
							Core 4 BV 787	top		
	via dummy antenna and earth			472 kc/s	510 kc/s		Core 5 BV 700	side	minimum	
				520 kc/s	520 kc/s		Core 6 BV 657/II	bottom	maximum	
				1.6 Mc/s	1.6 Mc/s		Trimmer 7 C 211	bottom		
				560 kc/s	560 kc/s		Core 8 BV 825	bottom		
				1.6 Mc/s	1.6 Mc/s		Trimmer 9 C 205	bottom		
			LW	150 kc/s	150 kc/s		Core 10 BV 546/I	bottom		B
				200 kc/s	200 kc/s		Coil 11 BV 729	top		
				200 kc/s	200 kc/s		Core 11a BV 810/II	top		A
			SW	6 Mc/s	6 Mc/s	SW lens to centre	Core 12 BV 702/V	bottom		
				7 Mc/s	7 Mc/s		Core 13 BV 725/II	bottom		
FM	to coupling cap over tube ECC 85	unmodulated	FM	10.7 Mc/s	94 Mc/s		Core 14 BV 788	bottom	3 turns out	C
							Core 15 FM section	top	2 turns out	
							Core 16 FM section	bottom	maximum	
							Core 15 FM section	top		
							Anode circuit ECH 81	A (Hex)	damp	
							Core 17 BV 788	top	1 - 2 turns out	
							Core 18 BV 787	top	maximum	
							Anode circuit ECH 81	A (Hex)	cancel damping	
							Grid circuit EF 89	G1	damp	
							Core 19 BV 787	bottom	maximum	
							Core 17 BV 788	top		
							Grid circuit EF 89	G1	cancel damping	
							Core 14 BV 788	bottom	zero output	D
	to dipole connector			105 Mc/s	105 Mc/s		Trimmer 20 FM section	top	maximum	C
				89 Mc/s	89 Mc/s		Coil 24 FM section	top		
							Trimmer 21 FM section	top		
				100 Mc/s	100 Mc/s		Coil 23 FM section	top		
						disconnect at W 191	Trimmer 22 FM section	top	minimum	E

Type of Measurement:

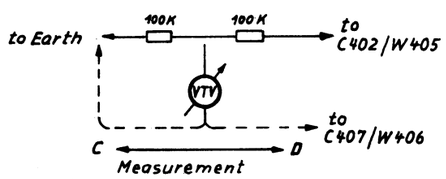
A. Connect AC voltmeter to connector for supplementary loudspeaker.

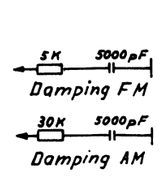
B. Tune by displacing the ferrite coil with ferrite antenna switched on, otherwise as under A.

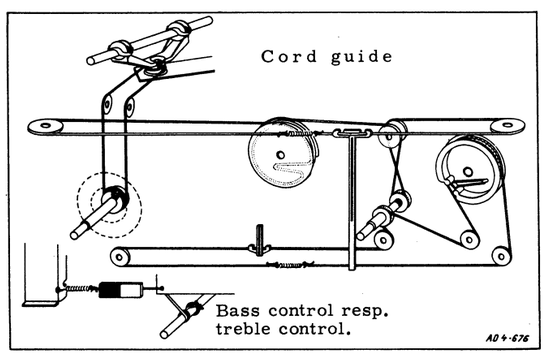
C. Tube voltmeter or high-impedance measuring instrument via blocking resistance at junction point C 402/W 405 and chassis.

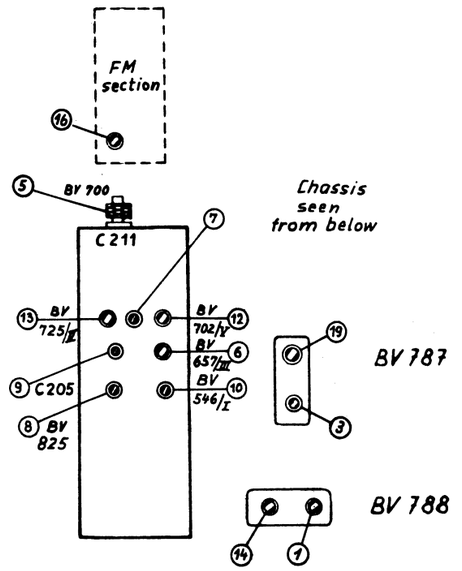
D. Voltage divider (2 x 100 kOhms) to junction point C 402/W 405 and chassis. Tube voltmeter or high-impedance measuring instrument to centre of voltage divider and to junction point C 407/W 406.

E. as under C, but disconnect at W 191 and substantially increase signal generator voltage.









ECC85

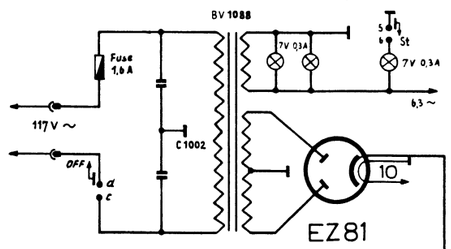
ECH81

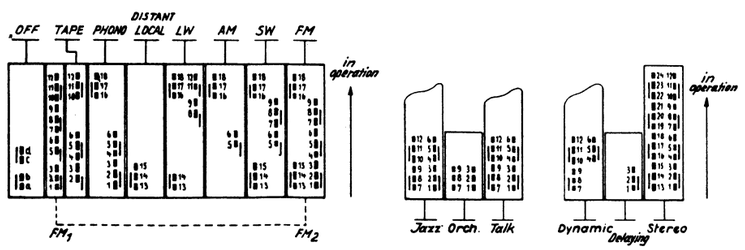
EF89

EAB(C)80

EM85
EABC80
E(AB)C80
EM85

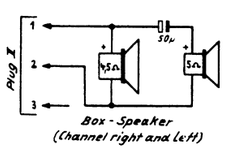
2×EL84



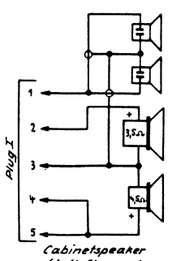


Tensions measured with VTV ≧ 10 MΩ,
Currents measured with moving coil instr.
1000 Ω/V on FM (on AM)

Position of press-button „OFF"



Box-Speaker
(channel right and left)



Cabinetspeaker
(left Channel)

Sockets seen from below

Wiringdiagram

Stereo-Dynamic
1070

KÖRTING RADIO WERKE
G m b H

SEEB.39

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AD 1 - 1017